



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,793	10/16/2003	Eros Nanni	P/2528-12	7936

2352 7590 10/04/2005

OSTROLENK FABER GERB & SOFFEN  
1180 AVENUE OF THE AMERICAS  
NEW YORK, NY 100368403

EXAMINER

MACPHERSON, MEOGHAN E

ART UNIT PAPER NUMBER

3732

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

<b>Office Action Summary</b>	<b>Application No.</b> 10/686,793	<b>Applicant(s)</b> NANNI ET AL.	
	<b>Examiner</b> Meoghan E. MacPherson	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/06/2004</u> .                                                           | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgement is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Italy on January 17, 2003. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings submitted on April 23, 2004 have been accepted by the examiner.

### ***Specification***

3. The specification is objected to because of the following informalities: spelling errors. The spelling error and its correction is as follows, "fibre" to --fiber--. Appropriate correction is required.

### ***Claim Objections***

4. Claims 6 and 10 are objected to because of the following informalities: spelling errors. The spelling errors and their respective correction are as follows: in claim 6, "last" to --least--; in claim 10, "fibre" to --fiber--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

Art Unit: 3732

invention. Claim 4 refers to “a polymerizing lamp as claimed in Claim 4”. As the claim in question is claim 4, it is impossible for it to depend upon itself.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Patten et al (US Patent No. 5,147,204).

Patten et al discloses a polymerizing lamp 10 for curing dental compounds. The lamp comprises of an optical means 48 with a light source 38, output optical fibers for directing the light from the light source towards the oral cavity of a patient, logic control means (within device 102), and a supporting member 12 (col. 1, line 65- col. 2, line 10; col. 3, lines 13-18,34 and 42-45; col. 5, lines 53-58; see Figures 1 and 3). Patten et al discloses the supporting member comprising two bodies 30,26 and a connecting means 32,34 for connecting the bodies to each other having a joint means enabling the bodies to move with respect to each other between at least two operating positions (col. 3, lines 19-27; col. 4, lines 29-35; see Figures 1 and 4). Patten et al further discloses a means for connecting (the cord adjacent to 18) the lamp to a dental unit (see Figure 1).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3732

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patten et al. Patten et al discloses the claimed invention that shows the limitations as described above; however, Patten et al does not disclose housing the optical means inside the first body and housing the logic control means inside the second body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to house the optical means inside the first body while housing the logic control means inside the second body, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

11. Claims 2, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patten et al in view of Scott et al (US Patent No. 5,549,634). Patten et al discloses the claimed invention that shows the limitations as described above; however, Patten et al does not disclose the supporting member's bodies having longitudinal axes substantially parallel to each other when in a first operating positions, yet forming an angle other than zero degrees when in a second operating position, one of the supporting member's bodies comprising a seat, the other of the supporting member's bodies comprising a shank to be inserted inside the seat for rotary connection and axially sliding, or the seat and shank defining the connecting means.

Scott et al teaches an instrument having a supporting member comprising two distinct bodies 17,13 with respective longitudinal axes 19,15 that are substantially parallel to each other when the bodies are in the first of two operating positions (col. 3, lines 24-28;see Figure 2). The respective longitudinal axes form an angle other than zero degrees, however, when in the second

Art Unit: 3732

of two operating positions (col. 3, lines 35-43). Scott et al also teaches a seat 43 with its own longitudinal axis in one of the bodies and a shank 59 in the second body, where the shank is inserted inside the seat, connecting in a rotary and axially sliding manner (col. 4, lines 6-9; see Figures 4 and 5). This connection defines the joint means 33 (col. 3, lines 41-43; see Figure 2, 3, and 6). Scott et al further teaches that the connecting means comprises a retaining means 71 to maintain angular integration between the seat and the shank. The two bodies comprise respective end faces 39, 55 facing each other and perpendicular to the longitudinal axis of the seat (see Figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the polymerizing lamp of Patten et al to include the teachings of Scott et al to create a polymerizing lamp that is easily manipulated from an aligned position to an angularly displaced position for improved manipulation of the lamp by the user.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patten et al in view of Scott et al and further in view of Lynch et al (US Patent No. 2,503,281). Patten et al in view of Scott et al discloses the claimed invention that shows the limitations as described above; however, Patten et al in view of Scott et al does not disclose the retaining means comprising at least two recesses formed on the first face and at least one tooth formed on the second face, the tooth engaging a recess, or an elastic thrust means acting on the tooth.

Lynch et al teaches a retaining means comprising of two recesses 20 formed on the first face and at least one tooth 19 formed on the second face (col. 2, line 19, 26-29; see Figure 2). The tooth is movable to and from a retaining position where the tooth engages a recess and an elastic thrust means 21 acts on the tooth to keep it normally in the retaining position (col. 2, lines 29-46; see Figure 2). It would have been obvious to one having ordinary skill in the art at the

Art Unit: 3732

time the invention was made to modify the polymerizing lamp of Patten et al in view of Scott et al to include the teachings of Lynch et al to create a swivel joint that is more durable in use and will more effectively retain the two bodies in the desired operating position.

13. Claims 8-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patten et al in view of Scott et al in view of Lynch et al and further in view of Fregoso'110 (US Patent No. 6,611,110). Patten et al in view of Scott et al in view of Lynch et al discloses the claimed invention that shows the limitations as described above; however, Patten et al in view of Scott et al in view of Lynch et al does not disclose an LED light emitting blue light with a wavelength in the range of 400 nm to 540nm, an optical coupling device, or a battery for electrically powering the polymerization lamp.

Fregoso'110 teaches a light source comprising at least one LED 22 for emitting blue light in the wavelength range of 400 nm to 540 nm, an optical coupling device 24 interposed between the light source and the optical fiber, and a battery 14 for electrically powering the polymerizing lamp (col. 2, lines 12-24; col. 3, line 66-col. 4 line 1; col. 4, lines 15-17; see Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the polymerizing lamp of Patten et al in view of Scott et al in view of Lynch et al to include the teachings of Fregoso'110 to yield a portable photocuring device that delivers light of sufficient intensity to cause photopolymerization with the aid of optical couplers to focus the emitted light into a more narrow, useful beam path.

Regarding claim 9, Patten et al in view of Scott et al in view of Lynch et al in view of Fregoso'110 discloses the claimed invention except for the optical means comprising a light source as an organic LED comprising two conducting electrodes and an organic material located

Art Unit: 3732

between the electrodes, which will emit blue light in the wavelength range of 400 nm to 540 nm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the light source comprise of an organic LED since the examiner takes Official Notice of the equivalence of LED's and organic LED's for their use in the lighting and electronic art and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Publication No. 2003/0081430 to Becker discloses a LED curing light for dental procedures which contains a swivel joint with the coupling of the dental hose.

US Patent No. 6,793,490 to Bianchetti et al discloses a dental handpiece for the polymerization of photosetting resins which includes a rectifier, filter, and stabilizer within the electronic circuit.

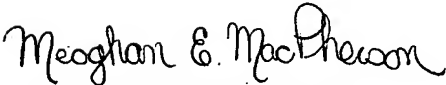
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meoghan E. MacPherson whose telephone number is (571)-272-5565. The examiner can normally be reached on Mon-Fri 9am-5pm.

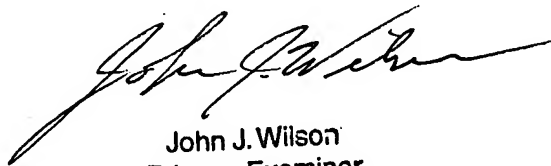
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Meaghan E. MacPherson

  
John J. Wilson  
Primary Examiner